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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,670	09/30/2003	Ludwig Busam	CM2701Q	5014

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EXAMINER

HAND, MELANIE JO

ART UNIT	PAPER NUMBER
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3761

MAIL DATE	DELIVERY MODE
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01/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/674,670

Applicant(s)

BUSAM ET AL.

Examiner

Melanie J. Hand

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-29 is/are pending in the application.
- 4a) Of the above claim(s) 12-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 21-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/28/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 24, 2007 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-9 and 21-29 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-9, 11 and 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funk et al (U.S. Patent No. 7,144,957).

With respect to **claim 1**: Funk teaches an absorbent article comprising a substantially liquid pervious topsheet, a substantially liquid impervious backsheet and an absorbent core between said topsheet and said backsheet, wherein said absorbent article comprises a nonwoven fabric (Col. 16, lines 49-57), wherein said nonwoven fabric: a) comprises a plurality of fibers (Col. 16, line 57); b) inherently has a surface tension of at least 65 mN/m when being wetted with saline

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solution; c) inherently has a liquid strike through time of less than 5 s for a fifth gush of liquid; and d) comprises polymers comprising hydrophilic monomer molecules, a reaction product of a radical polymerization initiator molecules chemically grafted to the surface of at least a part of said plurality of fibers comprised by said nonwoven fabric, and agent molecules, wherein the amount of radical polymerization initiator molecules (0.01-5 wt% based upon weight of monomer) is less than 2 wt% of the monomer molecules and at least three times the amount of the agent molecules (0.05-2.0 wt% based upon weight of monomer). (Col. 12, lines 32-35) The argument of inherency is based upon the presence of said polymers in the absorbent core along with the claimed hydrophilic fibers. These polymers and hydrophilic fibers also constitute the core of the claimed invention, therefore the core taught by Funk inherently possesses the claimed surface tension and liquid strikethrough time after a fifth gush of fluid. When the structure or composition recited in the reference is substantially identical to that of the claims of the instant invention, claimed properties or functions presumed to be inherent (MPEP 2112-2112.01). A prima facie case of obviousness has been established when the reference discloses all the limitations of a claim (in this case, the claimed nonwoven fabric) except for a property or function (in the present case, a specific surface tension or liquid strike through) and the examiner can not determine whether or not the reference inherently possesses properties that render obvious the claimed invention but has a basis for shifting the burden of proof to applicant, as per *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980).

Funk does not teach that the topsheet comprises said nonwoven fabric. However, since the topsheet is liquid pervious, a nonwoven fabric comprising hydrophilic fibers and having a liquid strike through time of less than five seconds seeks to solve a similar problem in the art as the topsheet (i.e. manage liquid insults quickly and effectively by transporting the liquid to the absorbent core), it would be obvious to one of ordinary skill in the art to modify the device of

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Funk such that the topsheet is comprised of said nonwoven fabric with a reasonable expectation of success.

With respect to **claim 2**: The nonwoven fabric comprises at least a first plurality of fibers (i.e. those coated with the swelling polymer) and a second plurality of fibers (i.e. hydrophilic fibers), wherein said first plurality of fibers is different from said second plurality of fibers. (Col. 17, line 65 - Col. 18, line 6, Col. 18, lines 59-62)

With respect to **claim 3**: Only said first plurality of fibers has hydrophilic polymers grafted to their surface. (Col. 18, lines 59-62)

With respect to **claim 4**: The strike through time after said first and said fifth gush of said nonwoven fabric does not decrease more than 5% after storage of said absorbent article for at least 10 weeks. This limitation is also considered herein to be an inherent property of the fabric taught by Funk. The basis for this inherency argument has been stated *supra* with respect to claim 1.

With respect to **claim 5**: The polymerized hydrophilic monomer taught by Funk comprises a molecule comprising at least one unsaturated double bond. (Col. 9, lines 17-19)

With respect to **claim 6**: The polymerized hydrophilic monomer taught by Funk comprises a molecule comprising a group (i.e. carboxyl), which is able to react with an acid or base to form a salt. (Col. 9, lines 17-19)

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With respect to **claim 7**: The polymerized hydrophilic monomer taught by Funk comprises acrylic acid. (Col. 9, lines 17-19)

With respect to **claim 8**: The polymers add at least on said first plurality of fibers from 0.3 wt% to 10 wt%. This rejection is based on Funk's teaching of the presence of the highly swellable hydrogel in the absorbent core of 10-100 wt % based upon the weight of the core, therefore the add-on weight percentage based upon the weight of the fiber will also be 10-100 wt% as the polymer is considered herein to be distributed evenly. This range overlaps the claimed range set forth in claim 8. (Col. 19, lines 51-53)

With respect to **claim 9**: The polymers are added to said first and said second plurality of fibers in a weight percent range of 0.3 wt% to 10 wt%. This rejection is based on Funk's teaching of the presence of the highly swellable hydrogel in the absorbent core of 10-100 wt % based upon the weight of the core, which contains the first and second pluralities of fibers. This range overlaps the claimed range set forth in claim 9. (Col. 19, lines 51-53)

With respect to **claim 11**: The absorbent core is provided with a core wrap material (i.e. tissue), but Funk does not teach that the wrap material comprises said nonwoven fabric. However, since Funk teaches tissue paper, which is a hydrophilic nonwoven material and the tissue layer seeks to solve a similar problem in the art as the nonwoven fabric, it would be obvious to one of ordinary skill in the art to modify the device of Funk such that the core wrap is comprised of said nonwoven fabric with a reasonable expectation of success.

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With respect to **claim 21**: Funk teaches an absorbent article comprising a substantially liquid pervious topsheet, a substantially liquid impervious backsheet and an absorbent core between said topsheet and said backsheet, wherein said absorbent core is provided with a core wrap material. (Col. 16, lines 49-57), The said nonwoven fabric: a) comprises a plurality of fibers (Col. 16, line 57); b) inherently has a surface tension of at least 65 mN/m when being wetted with saline solution; c) inherently has a liquid strike through time of less than 5 s for a fifth gush of liquid; and d) comprises polymers comprising hydrophilic monomer molecules, a reaction product of a radical polymerization initiator molecules chemically grafted to the surface of at least a part of said plurality of fibers comprised by said nonwoven fabric, and agent molecules, wherein the amount of radical polymerization initiator molecules (0.01-5 wt% based upon weight of monomer) is less than 2 wt% of the monomer molecules and at least three times the amount of the agent molecules (0.05-2.0 wt% based upon weight of monomer). (Col. 12, lines 32-35)

The argument of inherency is based upon the presence of said polymers in the absorbent core along with the claimed hydrophilic fibers. These polymers and hydrophilic fibers also constitute the core of the claimed invention, therefore the core taught by Funk inherently possesses the claimed surface tension and liquid strikethrough time after a fifth gush of fluid. When the structure or composition recited in the reference is substantially identical to that of the claims of the instant invention, claimed properties or functions presumed to be inherent (MPEP 2112-2112.01). A prima facie case of either anticipation or obviousness has been established when the reference discloses all the limitations of a claim (in this case, an absorbent article comprising the claimed nonwoven fabric) except for a property or function (in the present case, a specific surface tension or liquid strike through) and the examiner can not determine whether or not the reference inherently possesses properties that anticipate or render obvious the

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claimed invention but has a basis for shifting the burden of proof to applicant, as per *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980).

The absorbent core is provided with a core wrap material (i.e. tissue), but Funk does not teach that the wrap material comprises said nonwoven fabric. However, since Funk teaches tissue paper, which is a hydrophilic nonwoven material and the tissue layer seeks to solve a similar problem in the art as the nonwoven fabric, it would be obvious to one of ordinary skill in the art to modify the device of Funk such that the core wrap material is comprised of said nonwoven fabric with a reasonable expectation of success.

With respect to **claim 22**: The nonwoven fabric comprises at least a first plurality of fibers (i.e. those coated with the swelling polymer) and a second plurality of fibers (i.e. hydrophilic fibers), wherein said first plurality of fibers is different from said second plurality of fibers. (Col. 17, line 65 - Col. 18, line 6, Col. 18, lines 59-62)

With respect to **claim 23**: Only said first plurality of fibers has hydrophilic polymers grafted to their surface. (Col. 18, lines 59-62)

With respect to **claim 24**: The strike through time after said first and said fifth gush of said nonwoven fabric does not decrease more than 5% after storage of said absorbent article for at least 10 weeks. This limitation is also considered herein to be an inherent property of the fabric taught by Funk. The basis for this inherency argument has been stated *supra* with respect to claim 21.

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With respect to **claim 25**: The polymerized hydrophilic monomer taught by Funk comprises a molecule comprising at least one unsaturated double bond. (Col. 9, lines 17-19)

With respect to **claim 26**: The polymerized hydrophilic monomer taught by Funk comprises a molecule comprising a group (i.e. carboxyl), which is able to react with an acid or base to form a salt. (Col. 9, lines 17-19)

With respect to **claim 27**: The polymerized hydrophilic monomer taught by Funk comprises acrylic acid. (Col. 9, lines 17-19)

With respect to **claim 28**: The polymers add at least on said first plurality of fibers from 0.3 wt% to 10 wt%. This rejection is based on Funk's teaching of the presence of the highly swellable hydrogel in the absorbent core of 10-100 wt % based upon the weight of the core, therefore the add-on weight percentage based upon the weight of the fiber will also be 10-100 wt% as the polymer is considered herein to be distributed evenly. This range overlaps the claimed range set forth in claim 28. (Col. 19, lines 51-53)

With respect to **claim 29**: The polymers are added to said first and said second plurality of fibers in a weight percent range of 0.3 wt% to 10 wt%. This rejection is based on Funk's teaching of the presence of the highly swellable hydrogel in the absorbent core of 10-100 wt % based upon the weight of the core, which contains the first and second pluralities of fibers. This range overlaps the claimed range set forth in claim 29. (Col. 19, lines 51-53)

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie J. Hand whose telephone number is 571-272-6464. The examiner can normally be reached on Mon-Thurs 8:00-5:30, alternate Fridays 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Melanie J Hand
Examiner
Art Unit 3761

December 31, 2007

TATYANA ZALUKAEVA
SUPERVISORY PRIMARY EXAMINER

